

REMARKS

Claims 2-5, 7-12, and 18 are pending. Claims 7-8 and 18 are being amended.

The applicants appreciate the indication that claims 2-5 and 18 are directed to allowable subject matter. As discussed below, claim 18 is being amended to overcome formal matters, and thus, claims 2-5 and 18 are in condition for allowance.

The applicants also appreciate the Examiner's time and courtesy in conducting a telephone interview with the applicants' attorney on February 22, 2005. During the telephone interview, the applicants' attorney asserted that the primary reference did not disclose "each sequential subtractor or adder element includes a carry-out pin fed to an input of one of the sequential subtractor or adder elements of a previous one of the combinational logic blocks," which is recited in claim 7. The Examiner agreed that the primary reference did not appear to disclose the quoted language of claim 7, but indicated that he would consider the claim language and prior art in more detail in response to a written response to the pending office action. The following discussion tracks the discussion during the telephone interview.

The drawings were objected to because the Examiner asserted that they did not show the following feature of claims 7, 8, and 18: "the same delay element is used for multiplication by a factor of two and also for a carry function." Claims 2-5, 7-12, and 18 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for reciting the quoted claim language. Claims 7, 8, and 18 are being amended to remove the quoted claim language. Thus, the drawing objection and the Section 112 rejection are overcome.

Claim 18 was also objected to for a typographical error that has been corrected.

Claims 7-11 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,370,556 to Saramaki et al. ("Saramaki"). Claim 12 was rejected under 35 U.S.C. § 103 as being unpatentable over Saramaki.

As discussed during the telephone interview, Saramaki does not teach or suggest the invention recited in claim 7. Claim 7 recites a filter in which each sequential subtractor or adder element includes a carry-out pin fed to an input of one of the sequential subtractor or adder elements of a previous one of the combinational logic blocks. Saramaki does not teach or suggest the claimed arrangement in which each subtractor or adder element includes a carry-out

pin that is fed to an input of one of the sequential subtractor or adder elements of a previous one of the combinational logic blocks. In fact, the adders shown in Figure 4 of Saramaki each only have one output, which as is known in the art, indicates that the adders are half-adders without carryout pins.

Even if it were assumed that the Saramaki adders were full-adders that inherently included carry-out pins, Saramaki still would not teach or suggest the claimed invention. Claim 7 recites that each adder or subtractor element includes a carry-out pin that is fed to an input of one of the subtractor or adder elements of a previous combination logic block. There is nothing in Saramaki to suggest such an arrangement of carry-out pins to subtractor/adder inputs of previous blocks. In contrast, Figure 11 of the present application shows an adder FA(3) having a carry-out pin Cout connected to an input C1 of an adder FA(5) that is part of the previous combination logic block. Note that in Figure 11 the output is located at the lower left corner of the figure, and thus, a previous logic block is shown to the right of a present logic block.

Accordingly, claim 7 is not anticipated by Saramaki.

Although the language of claims 8-12 is not identical to that of claim 7, the allowability of claims 8-12 will be apparent in view of the above discussion.

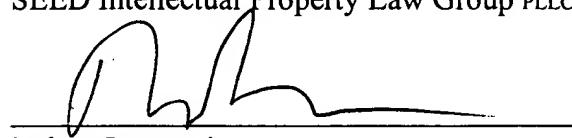
Application No. 09/807,500
Reply to Office Action dated December 1, 2004

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

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